

CLAIMS

1. A wiring substrate provided with a conduction path for guiding an electric signal between a signal input surface and a signal output surface,

5 the wiring substrate comprising a glass substrate made of a predetermined glass material having a radiation shielding function, and provided with a through hole, and a conductive member provided in the through hole and establishing electrical continuity between the input surface and the output surface to function as the conduction path,

10 wherein the through hole in the glass substrate is formed so that an aperture of the through hole in a predetermined plane perpendicular to a conduction direction from the signal input surface toward the signal output surface is within a region except for a region on an extension along the conduction direction of an aperture of the through hole in the signal input surface.

15 2. The wiring substrate according to Claim 1, wherein the through hole in the glass substrate is formed so that a center line thereof is inclined at a predetermined angle relative to the conduction direction.

20 3. The wiring substrate according to Claim 1, wherein the through hole in the glass substrate is formed so that a center line thereof is curved relative to the conduction direction.

25 4. The wiring substrate according to any one of Claims 1 to 3, wherein the glass substrate is made of the glass material containing lead.

5. The wiring substrate according to any one of Claims 1 to 4, wherein the conductive member is provided so as to be formed on an inner wall of the through hole in the glass substrate.

6. The wiring substrate according to any one of Claims 1 to 4, wherein the conductive member is provided so as to be filled inside the through hole in the glass substrate.

5 7. The wiring substrate according to any one of Claims 1 to 6, wherein the glass substrate is a glass substrate with a plurality of said through holes made by fusing together and integrally forming a plurality of hollow glass members opening at both ends.

8. A radiation detector comprising:

10 radiation detecting means for detecting an incident radiation and outputting a detected signal;

signal processing means for processing the detected signal from the radiation detecting means; and

15 a wiring substrate section having the wiring substrate as set forth in any one of Claims 1 to 7, provided with the conduction path for guiding the detected signal between the signal input surface and the signal output surface, in which the radiation detecting means and the signal processing means are connected to the signal input surface and to the signal output surface, respectively;

20 wherein the radiation detecting means, the wiring substrate section, and the signal processing means are arranged in that order along a predetermined alignment direction substantially coincident with the conduction direction in the wiring substrate.

25 9. The radiation detector according to Claim 8, wherein the radiation detecting means has a scintillator for generating scintillation light upon incidence of the radiation, and a semiconductor photodetecting element for detecting the scintillation light from the

scintillator.

10. The radiation detector according to Claim 8, wherein the radiation detecting means has a semiconductor detecting element for detecting the incident radiation.

5 11. The radiation detector according to any one of Claims 8 to 10, wherein at least one of a set of the wiring substrate section and the radiation detecting means, and a set of the wiring substrate section and the signal processing means are electrically connected through a bump electrode.